

REMARKS

This Response is submitted in reply to the Office Action mailed on July 26, 2007. A request for one-month extension of time is attached. The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-746 on the account statement.

Claims 1-4, 6-9 and 11-26 are pending. Claims 17-21 were previously withdrawn and Claims 5 and 10 were previously canceled. In the Office Action, Claims 1-4, 6-9, 11-16, and 22-26 are rejected under 35 U.S.C. §112; Claims 1-4, 6, 8, 9, 11-16, 22 and 24-26 are rejected under 35 U.S.C. §102, and Claims 1-4, 6-9, 11-16 and 23-26 are rejected under 35 U.S.C. §103. In response, Applicants amend Claims 1, 9, 15, 16, 22, 23, 24 and 26. These amendments do not add new matter. In view of the amendments and for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, Claims 23, 24 and 26 are rejected under 35 U.S.C. §112, first paragraph, for not being properly enabled. Specifically, the Office Action asserts that the specification does not reasonably provide enablement for preventing skin dryness as claimed in Claim 23. Moreover, the Office Action asserts that the specification does not reasonably provide enablement for preventing cancer as claimed in Claims 24 and 26. In response, Applicants amend Claims 23, 24 and 26 to remove “preventing” from the claims.

In the Office Action, Claims 1-4, 6-9, 11-16 and 22-26 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Office Action questions the use of terms “enriched”, “10.sup.-10%”, and “sensible” or “reactive skins.” Moreover, the Office Action asserts that Claims 16 and 25 lack sufficient antecedent basis.

With regard to the term “enriched”, Applicants submit that the specification sufficiently defines this term. For example, the specification states:

In a most preferred embodiment, the carotenoid-containing material which is in the form of an extract, a concentrate or an oleoresin, is subjected to a microwave irradiation or to other treatments including non-thermal treatments. Conditions of the microwave irradiation depend on the quantity and quality of the material. If an oleoresin is used, the power and time are adjusted so that the temperature of the microwave oven is of at least 100.degree. C., preferably from 100 to 180.degree. C. and most preferably from 115 to 140.degree. C. If an aqueous extract is used, a medium adapted to microwave irradiation may be used. The aim of the medium is to solubilize or disperse carotenoids. The losses can be minimised when the isomerisation is performed under nitrogen in the presence

of antioxidants and in the absence of light. The isomerisation yield may also be improved by adding exogenous lipids in the medium.

The isomers of carotenoid-containing compound generated thereof may be subjected to a further treatment intended to modify the isomer profile of the primary composition according to the intended use. The enrichment in some specific *cis*-isomers may be achieved by solubilisation of *cis*-isomers in selected organic solvents followed by phase separation using centrifugation or filtration, for example.

The *cis:trans* isomer ratio in the primary composition may then be increased up to at least 20:80, preferably between 20:80 and 95:5, more preferably from 30:70 to 90:10.

See, specification, page 6, line 14 to page 7, line 3. Applicants respectfully submit that the specification, as shown above, sufficiently defines "enriched", how enrichment can be performed, and the results of enrichment.

With regard to the term "10.sup.10%", Applicants amend Claim 16 to recite "10.sup.10".

Regarding the term "sensible", Applicants respectfully submit that "sensible", being a synonym of "sensitive", refers to sensitive skin. A person having ordinary skill in the art of skin care would know that sensible, or sensitive, skin is a characteristic of dry skin. See, for example, <http://www.gerovital-online.com/info.php>, "Dry Skin"; <http://www.freshlonger.com/48/creams/wrinkle-cream.html>; <http://www.collagenpoint.com/index.php?go=collagen>, "Light Body Balm."

Similarly, term "reactive", as is known by persons having ordinary skill in the art, refers to a specific type of sensitive skin. Specifically, "reactive skin that is prone to redness is sensitive skin usually characterized by an abnormal and more permeable skin barrier due to environmental or chemical irritants including, but not limited to, temperature fluctuations, pollution, hormonal changes, harsh soaps, fragrance and some medications. There are also certain underlying skin conditions that can manifest in redness, dryness, and sometimes Pruritis (itchiness), tightness and burning like rosacea, seborrheic dermatitis, eczema and psoriasis." See, Kendall, MD, P.A., http://www.laroche-posay.us/_us/_en/skintype/skin_type_detail.aspx?TopCode=F2_REACTIVE_SKIN_C.

Lastly, regarding the limitation "the content" in Claims 16 and 25, Applicants amend Claims 9 and 15 for which Claims 16 and 25 depend. Applicants amend Claims 9 and 15 to recite, in part, a composition comprising a primary composition comprising at least one carotenoid-containing material, enriched in *cis*-isomers of the carotenoid compound. The amendment is supported in the specification at page 2, lines 1-12.

Accordingly, Applicants respectfully request that the rejections of Claims 1-4, 6-9, 11-16, and 22-26 under 35 U.S.C. §112 be withdrawn.

In the Office Action, Claims 1-4, 6, 8, 9, 11-15, 22 and 25 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,965,183 to Hartal et al. ("*Hartal*"). Further, Claims 1-4, 6, 8, 9, 11-14 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,329,557 to Rodriguez et al. ("*Rodriguez*"). Moreover, Claims 1-4, 6, 8, 9, 11-16, 22 and 24-26 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,310,554 to Haigh et al. ("*Haigh*").

Amended independent Claims 1, 9, 15, 22, 24 and 26 recite, in relevant part, a composition comprising at least one carotenoid-containing material, enriched in *cis*-isomer of the carotenoid compound, wherein the carotenoid compound is selected from the group consisting of lycopene, xeaxanthine, beta-cyrtloxanthin, capsanthine, canthaxanthine, lutein, phytofluene, phytoene, and combinations thereof. The amendment is supported in the specification at page 5, lines 29-31. Applicants respectfully submit that the above cited references each fail to disclose each and every element of the present claims.

For example, Applicants respectfully submit that each of the cited references fail to disclose or suggest a composition comprising at least one carotenoid-containing material, enriched in *cis*-isomer of the carotenoid compound, wherein the carotenoid compound is selected from the group consisting of lycopene, xeaxanthine, beta-cyrtloxanthin, capsanthine, canthaxanthine, lutein, phytofluene, phytoene, and combinations thereof. In fact, *Hartal* and *Rodriguez* each fail to disclose involvement of *cis*-isomers anywhere in their respective patent. Though *Hartal* discloses enriching lycopene, it only teaches removing the fraction poor in lycopene, thereby leaving an enriched lycopene fraction. See, *Hartal*, column 5, lines 35-50. However, the present claims go further by disclosing the specific enrichment in *cis*-isomers of the carotenoid compound already generated.

Haigh, while arguably disclosing carotenoid-containing material enriched in *cis*-isomers, fails to disclose a carotenoid compound selected from the group consisting of lycopene, xeaxanthine, beta-cyrtloxanthin, capsanthine, canthaxanthine, lutein, phytofluene, phytoene, and combinations thereof. Rather, *Haigh* only teaches compositions of high purity natural beta carotene. See, *Haigh*, Abstract; column 2, lines 18-21.

Therefore, Applicants respectfully submit that each of the cited references fail to disclose or suggest every element of the present claims. Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. §102(b) be withdrawn.

In the Office Action, Claims 1-4, 6-9, 11-16 and 23-26 are rejected under 35 U.S.C. §103(a) as obvious in view of *Haigh*. Applicants respectfully submit that the patentability of independent Claims 1, 9, 15, 22, 24 and 26 as previously discussed renders moot the obviousness rejections of Claims 2-4, 6-8, 11-14, 16, 23 and 25 that depend from Claims 1, 9, 15, 22, 24 and 26. In this regard, the cited art fails to teach or suggest the elements of Claims 2-4, 6-8, 11-14, 16, 23 and 25 in combination with the novel elements of Claims 1, 9, 15, 22, 24 and 26.

Accordingly, Applicants respectfully request that the obviousness rejection of Claims 1-4, 6-9, 11-16 and 23-26 be withdrawn

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same.

Respectfully submitted,

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